



United States
Department of
Agriculture

Soil
Conservation
Service

St. Paul,
Minnesota

Minnesota's Farmland

An Endangered Resource



Minnesota's Farmland: Losing Ground

Minnesota is losing ground - literally. Over 100 million tons of topsoil erodes yearly from the state's cropland. That's enough soil to bury both sides of I-94 12 feet under from Minneapolis to Miles City, Montana.

Minnesota is losing ground in another way. Annually, 49,000 acres of farmland is lost to urban encroachment. Daily, an average of 134 acres of cropland is bulldozed for highways, housing developments, and other nonagricultural uses. One-third of this converted land is prime farmland, the state's richest and most productive land.

What impact does this soil loss and conversion of farmland have on you? Plenty. Farmers have to plant on less productive land, which requires more fertilizer and other additional costs. As the farmer's costs go up, so do the consumer's.

Erosion: Loss of Soil and Productivity

Erosion caused by water and wind damages Minnesota's farmland. Nearly one-third of Minnesota's 23 million acres of cropland is losing topsoil faster than nature replenishes it. The natural fertility of this land is gradually being depleted.

Much of the soil that erodes is deposited as sediment in ditches, streams, rivers, and lakes. This sediment clogs waterways and is a silent polluter because of the farm chemicals the soil contains.

To conserve topsoil, farmers are converting to conservation tillage. Conservation tillage decreases the number of tillage operations and thus reduces soil's susceptibility to erosion. With conservation tillage, crop residue remains on the soil's surface. The residue acts as a sponge, soaking up water, thereby preventing erosion, sedimentation, and pollution.

Many farmers are reducing erosion by using conservation tillage in combination with contour strip-cropping, terraces and other conservation practices.

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Prime Farmland: Slipping Away

Prime farmland is a precious natural resource. The soil is rich in nutrients. It is well drained, and soil erosion is light. Prime farmland produces high crop yields, requires less fertilizer, fuel, and labor than other land. About two-thirds of Minnesota's cropland is prime farmland.

What is happening to this prime farmland? Approximately 16,000 acres of this rich soil is converted annually to non-agricultural uses. If protected, this farmland would produce over a million and a half bushels of corn worth \$4 million.

Several local governments have agricultural preserve programs which offer incentives to farmers to retain their land in agriculture. Farms can be sold, but the agricultural preserve designation remains with the property, much like an easement.

Many counties use soil survey maps compiled by the Soil Conservation Service. Soil surveys designate prime farmland and other important farmland. The maps assist local officials develop ordinances to restrict development in prime agricultural areas.

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- A. No erosion control needed
12.3 million acres 53%
- B. Erosion controlled by conservation
3.4 million acres 15%
- C. Erosion control needed
7.3 million acres 32%

- 1. Rill erosion carves out ridges in the soil, decreasing the productivity of the land.
- 2. A farmer and an SCS soil conservationist check seed placement after planting into crop residue.
- 3. Corn stalk residue provides a protective blanket, thereby reducing soil erosion.
- 4. Prime farmland gives way to an urban housing development.

All programs and services of the U.S. Department of Agriculture are available to everyone without regard to race, creed, color, sex, or national origin.

Conservation and Land Use: A Process of Gaining Ground

The tide is turning in Minnesota. Instead of losing ground, we're gaining ground by various conservation methods and prudent land-use policies. Farmers are installing grassed waterways, terraces, and windbreaks, and are using conservation tillage to prevent the vast gullies and dust storms of the Dust

Bowl Days from returning. Also, landowners and state and local officials are working together to preserve Minnesota's agricultural lands.

For more information about conservation, contact the soil conservation office in your county.

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